W02993-QES

Quanterra Environmental Services

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CASE NARRATIVE

0052749

Bechtel Hanford Incorporated
3350 George Washington Way
Richland, Washington 99352

February 4, 2000

Attention: Joan Kessner

Quote Number	:	33811
SDG	:	W02993
Number of Samples	:	twenty (20)
Sample Matrix	:	Solid
Data Deliverable	:	Summary
Date SDG Closed	:	January 4, 2000

II. Introduction

Between December 29, 1999, and January 4, 2000, twenty (20) "solid" samples were received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. The samples were received at the St. Louis lab within the temperature criteria. See the attached Sample Summary for a listing of Client Ids and their associated Lab numbers.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested: ICP Metals – 6010 Super Trace – Lead
Mercury – 7471 - CV

Deviation from Request: None

IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike

MS- Matrix Spike.
MSD- Matrix Spike Duplicate.

V. Comments

General: The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

Please refer to the attached cross-reference table for the standard preparation methods used at Quanterra, St. Louis.

Metals: A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Spike Duplicate were analyzed with each preparation batch per the protocol for this analysis.

There were no comments or non-conformances associated with this SDG.

I certify that this Summary is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:

Marti Ward
St. Louis Project Manager

SAMPLE SUMMARY

F0A040163

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
D72VN	001	B0XBH1	12/29/99	12:53
D72X4	002	B0XBH2	12/29/99	13:02
D72X5	003	B0XBH3	12/29/99	13:14
D72X6	004	B0XBH4	12/29/99	13:37
D72XC	005	B0XB46	01/03/00	08:13
D72XH	006	B0XB47	01/03/00	08:26
D72XJ	007	B0XB48	01/03/00	08:34
D72XK	008	B0XB49	01/03/00	08:42
D72XL	009	B0XB50	01/03/00	08:51
D72XM	010	B0XB51	01/03/00	09:05
D72XN	011	B0XB52	01/03/00	09:05

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SAMPLE SUMMARY

F0A050217

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
D74C5	001	B0XB53	01/04/00	08:20
D74C9	002	B0XB54	01/04/00	08:32
D74CC	003	B0XB55	01/04/00	08:41
D74CE	004	B0XB56	01/04/00	08:48
D74CF	005	B0XB57	01/04/00	08:53
D74CG	006	B0XB58	01/04/00	09:15
D74CJ	007	B0XB59	01/04/00	09:28

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SAMPLE SUMMARY

F9L300209

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
D7124	001	B0X9V6	12/27/99	13:03
D7369	002	B0X9V7	12/27/99	13:17

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

METHODS SUMMARY

F0A040163

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XBH1
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-001
WORK ORDER: D72VN
RECEIVING DATE: 1/03/00
SAMPLING DATE: 12/29/99
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 12:53
RECEIVING TIME: 8:34
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	6/26/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72VN Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/26/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72VN Protocol: A QC Program: STANDARD TEST SET				

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33811
PROJECT MANAGER: MARTI WARD LAB ID: F-0A040163-001-D
PROJECT #: D&D WORK ORDER: D72VN MSD
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 1/03/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 12/29/99
SITE: B00-013 ANALYTICAL DUE DATE: 1/21/00N
AMOUNT REC"D: 60G REPORT DUE DATE: 1/24/00
STORAGE LOC: T5F PRIORITY: 18
LOT COMMENTS: Hanford Summary and FEAD EDD required *SAMPLING TIME:* 12:53
MATRIX: SOLID RECEIVING TIME: 8:34
SAMPLE ID: B0XBH1
QC PACKAGE: Special Report - see checklist *SDG# : W02993*
SAMPLE COMMENTS:

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	6/26/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72VN Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/26/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72VN Protocol: A QC Program: STANDARD TEST SET				

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XBH1
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-001-S
WORK ORDER: D72VN MS
RECEIVING DATE: 1/03/00
SAMPLING DATE: 12/29/99
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 12:53
RECEIVING TIME: 8:34
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	6/26/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72VN Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/26/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72VN Protocol: A QC Program: STANDARD TEST SET				

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XBH2
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-002
WORK ORDER: D72X4
RECEIVING DATE: 1/03/00
SAMPLING DATE: 12/29/99
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 13:02
RECEIVING TIME: 8:34
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	6/26/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72X4 Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/26/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72X4 Protocol: A QC Program: STANDARD TEST SET				

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XBH3
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-003
WORK ORDER: D72X5
RECEIVING DATE: 1/03/00
SAMPLING DATE: 12/29/99
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 13:14
RECEIVING TIME: 8:34
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	6/26/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72X5 Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/26/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72X5 Protocol: A QC Program: STANDARD TEST SET				

000012

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XBH4
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-004
WORK ORDER: D72X6
RECEIVING DATE: 1/03/00
SAMPLING DATE: 12/29/99
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 13:37
RECEIVING TIME: 8:34
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D72X6 Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	6/26/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D72X6 Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	1/26/00

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB46
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-005
WORK ORDER: D72XC
RECEIVING DATE: 1/03/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 8:13
RECEIVING TIME: 11:40
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D72XC Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	7/01/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D72XC Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	1/31/00

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB47
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-006
WORK ORDER: D72XH
RECEIVING DATE: 1/03/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 8:26
RECEIVING TIME: 11:40
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D72XH Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	7/01/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D72XH Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	1/31/00

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB48
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-007
WORK ORDER: D72XJ
RECEIVING DATE: 1/03/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 8:34
RECEIVING TIME: 11:40
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D72XJ Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	7/01/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D72XJ Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	1/31/00

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/04/00
Time: 15:57:48
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T5F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB49
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A040163-008
WORK ORDER: D72XK
RECEIVING DATE: 1/03/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 8:42
RECEIVING TIME: 11:40
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	7/01/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72XK Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/31/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72XK Protocol: A QC Program: STANDARD TEST SET				

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33811
PROJECT MANAGER: MARTI WARD LAB ID: F-0A040163-009
PROJECT #: D&D WORK ORDER: D72XL
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 1/03/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 1/03/00
SITE: B00-013 ANALYTICAL DUE DATE: 1/21/00N
AMOUNT REC"D: 60G REPORT DUE DATE: 1/24/00
STORAGE LOC: T5F PRIORITY: 18
LOT COMMENTS: Hanford Summary and FEAD EDD required SAMPLING TIME: 8:51
MATRIX: SOLID RECEIVING TIME: 11:40
SAMPLE ID: B0XB50
QC PACKAGE: Special Report - see checklist SDG# : W02993
SAMPLE COMMENTS:

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	7/01/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72XL Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/31/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72XL Protocol: A QC Program: STANDARD TEST SET				

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33811
PROJECT MANAGER: MARTI WARD LAB ID: F-0A040163-010
PROJECT #: D&D WORK ORDER: D72XM
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 1/03/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 1/03/00
SITE: B00-013 ANALYTICAL DUE DATE: 1/21/00N
AMOUNT REC"D: 60G REPORT DUE DATE: 1/24/00
STORAGE LOC: T5F PRIORITY: 18
LOT COMMENTS: Hanford Summary and FEAD EDD required SAMPLING TIME: 9:05
MATRIX: SOLID RECEIVING TIME: 11:40
SAMPLE ID: B0XB51
QC PACKAGE: Special Report - see checklist SDG# : W02993
SAMPLE COMMENTS:

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	7/01/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72XM Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/31/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72XM Protocol: A QC Program: STANDARD TEST SET				

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33811
PROJECT MANAGER: MARTI WARD LAB ID: F-0A040163-011
PROJECT #: D&D WORK ORDER: D72XN
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 1/03/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 1/03/00
SITE: B00-013 ANALYTICAL DUE DATE: 1/21/00N
AMOUNT REC"D: 60G REPORT DUE DATE: 1/24/00
STORAGE LOC: T5F PRIORITY: 18
LOT COMMENTS: Hanford Summary and FEAD EDD required SAMPLING TIME: 9:05
MATRIX: SOLID RECEIVING TIME: 11:40
SAMPLE ID: B0XB52
QC PACKAGE: Special Report - see checklist SDG# : W02993
SAMPLE COMMENTS:

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/04/00	0/00/00	7/01/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D72XN Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/04/00	0/00/00	1/31/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D72XN Protocol: A QC Program: STANDARD TEST SET				

COR #020562 2° Q-21038

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B00-013-142	Page 1 of 1
Collector: Fahlberg	Company Contact: J Adler; Telephone No.: 373-4316	Project Coordinator: TRENT, SJ	Price Code 9L; Data Turnaround 21 Days
Project Designation: 105-F/DR Phase III Below-grade Areas Sampling and Analy	Sampling Location: 105F	SAF No.: B00-013	Air Quality ☐
Ice Chest No.: ERC.99.010	Field Logbook No.: EL 1424; COA: R105F2280C	Method of Shipment: Gov. Vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: N/A	Bill of Lading/Air Bill No.: N/A Airborne 004012582	

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	None	None									
Type of Container	aG	aG									
No. of Container(s)	1	1									
Volume	60mL	120mL									
SAMPLE ANALYSIS	ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7471 - (CV)	See item (1) in Special Instructions.									

SDL W02993 Due 1-24-00 J0A030128

	Sample No.	Matrix *	Sample Date	Sample Time										
1	B0XBH1	Other Solid	12.29.99	1253	X	X	D71	PV	100%	Full			Box	BF7
2	BoxBH2	other solid	12.29.99	1302	X	X	D71	QB	↓				Box	BF7
3	BoxBH3	other solid	12.29.99	1314	X	X	D71	QA	↓				Box	BF8
4	Box BH4	other solid	12.29.99	1337	X	X	D71	QC	↓				Box	BF8

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
R Fahlberg/R. Fahlberg	12-29-99 1530	Ref I.C	12-29-99 1530
Ref. I.C	01-03-00/0730	K. Thoren	01-03-00/0730
K. Thoren	01/03/00/0834	K. Achtenberg	1-3-00 834
K. Achtenberg	1-3-00 1600	Jason Aumann	3:00 PM 01-04-00 0850

SPECIAL INSTRUCTIONS

(1) Gamma Spectroscopy {Cobalt-60}; Gamma Spec - Add-on {Barium-133}; Isotopic Plutonium; Strontium-89,90 -- Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14

Matrix *
S=Soil
SE=Sediment
SO=Solid
S=Sludge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

000021

BHI-EE-011 (10/99)

CUK # 020560 a

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B00-013-90	Page 1 of 1
Collector: Fahlberg	Company Contact: J Adler	Telephone No.: 373-4316	Project Coordinator: TRENT, SJ	Price Code: 9L; Data Turnaround: 21 Days
Project Designation: 105-F/DR Phase III Below-grade Areas Sampling and Analy	Sampling Location: 105 F		SAF No.: B00-013	Air Quality ☐
Ice Chest No.: SML-452	Field Logbook No.: EL 1424	COA: R105F2280C	Method of Shipment: Gov. vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	Cool 4C	None	Cool 4C	None	None					
Type of Container	aG	aG	aG	aG	aG					
No. of Container(s)	0	0	1	1	1					
Volume	60mL	120mL	60mL	60mL	120mL					
SAMPLE ANALYSIS	PCBs - 8082	Isotopic Uranium	7196_CR6: Hexavalent Chromium (1)	ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7471 - (CV)	See item (1) in Special Instructions.					

	Sample No.	Matrix *	Sample Date	Sample Time									
5	B0XB46 (5)	Other Solid	1-3-00	0813			X	X	X	D71	QD	100%	Full
6	BoxB47	OTHER SOLID	1-3-00	08:26			X	X	X	D71	QJ		
7	BoxB48	OTHER SOLID	1-3-00	08:34			X	X	X	D71	QK		
8	BoxB49	OTHER SOLID	1-3-00	08:42			X	X	X	D71	QL		
9	BoxB50	OTHER SOLID	1-3-00	~~08:55~~ 08:51			X	X	X	D71	QR		

CHAIN OF POSSESSION — Sign/Print Names RAP 1-3-00

Relinquished By	Date/Time	Received By	Date/Time
Reelly Rahlberg	1-3-00 0730	R Thoren	1-3-00 1030
R Thoren	1-3-00 1140	K Adler	1-3-00 1146
K Adler	1-3-00 1600	Jason Hermann	01-04-00 0850

SPECIAL INSTRUCTIONS

(1) Gamma Spectroscopy (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 – Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14

OUT OF GAMMA SPEC ANALYZE URANIUM. OUT OF ICP METALS ANALYZE PCB's

Matrix *: S=Soil; SE=Sediment; SO=Solid; S=Sludge; W=Water; O=Oil; A=Air; DS=Drum Solids; DL=Drum Liquids; T=Tissue; WI=Wipe; L=Liquid; V=Vegetation; X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

0002202

BHI-EE-011 (10/99)

CUK# U00362 a

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B00-013-95	Page 1 of 1
Collector: Fahlberg	Company Contact: J Adler	Telephone No.: 373-4316	Project Coordinator: TRENT, SJ	Price Code: 9L; Air Quality ☐
Project Designation: 105-F/DR Phase III Below-grade Areas Sampling and Analy	Sampling Location: 105 F		SAF No.: B00-013	Data Turnaround: 21 Days
Ice Chest No.: SML-452	Field Logbook No.: EL 1424	COA: 105F2280C	Method of Shipment: Gov. vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	Cool 4C	None	Cool 4C	None	None					
Type of Container	aG	aG	aG	aG	aG					
No. of Container(s)	0	0	1	1	1					
Volume	60mL	120mL	60mL	60mL	120mL					
SAMPLE ANALYSIS	PCBs - 8082	Isotopic Uranium	7196_CR6 Hexavalent Chromium (1)	ICP Metals - 6010A (Supertrace) [Lead]; Mercury - 7471 - (CV)	See item (1) in Special Instructions.					

	Sample No.	Matrix *	Sample Date	Sample Time										
10	B0XB51	Other Solid	1-3-00	09:05			X	X	X	D71	QV	100%	Full	
11	B0XB52	OtherSolid	1-3-00	09:05			X	X	X	D71	QW	↓		

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
R. Fahlberg / R. Fahlberg	1-3-00 1030	R. Thoren	1-3-00/1030
R. Thoren	1-3-00/1140	K. Dethmer	1-3-00 1140
K. Dethmer	1-3-00 1600	Jason Tremann	01-04-00 0850

SPECIAL INSTRUCTIONS

(1) Gamma Spectroscopy (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 -- Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14

OUT OF GAMMA SPEC ANNIVIZE URANIUM
OUT OF ICP METALS ANNIVIZE PCB'S

Matrix *: S=Soil; SE=Sediment; SO=Solid; S=Sludge; W=Water; O=Oil; A=Air; DS=Drum Solids; DL=Drum Liquids; T=Tissue; WI=Wipe; L=Liquid; V=Vegetation; X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

23000

BHI-EE-011 (10/99)

ERC Radiological Counting Facility Analysis Report

RCF Number RCF6958 — **Sample Date & Time** 12/29/99 0935

Project ID: 105-F — **SAF Number:** B00-013 — **Date Analyzed** 12/30/99 8:07:

Sample ID: B0XBF5

BOXB46
BOXB52

Gamma Energy Analysis

Nuclide		Activity (pCi/g)		Error (pCi/g)	MDC (pCi/g)
K-40	<	1.4E+02			1.4E+02
Co-60	<	7.8E+00			7.8E+00
Cs-137	<	2.0E+01			2.0E+01
Eu-152	<	4.9E+01			4.9E+01
Eu-154	<	3.9E+01			3.9E+01
Eu-155	<	7.9E+01			7.9E+01
Th-232D	<	4.4E+01			4.4E+01
U-235	<	1.6E+02			1.6E+02
U-238	<	3.4E+03			3.4E+03
U-238D		1.4E+02	+/-	4.5E+01	5.1E+01
Am-241	<	4.5E+01			4.5E+01

Total GEA (pCi/g) 1.4E+02 +/- 4.5E+01

	Activity (pCi/g)		Error (pCi/g)
Gross Alpha**	2.0E+00	+/-	9.3E-01
Gross Beta	2.4E+01	+/-	1.7E+00

Alpha MDC (pCi/g)
9.3E-01
Beta MDC (pCi/g)
1.3E+01

Definitions:

All errors reported at 2 standard deviations.
N/R = no result or analysis not requested. <MDC = Less than detection limit.
All GEA results reported as "<" list the Minimum Detectable Concentration (MDC) value for that radionuclide.
Rounding error may result in the reported total GEA activity differing from the sum of the > MDC GEA values in the second significant digit.

For soils and natural samples, the following applies:

The analysis of U-238 is based on the activity of Pa-234m.
The analysis of Np-237 is based on the activity of Pa-233.
U-238dau is the activity of Pb-214 and Bi-214, short lived daughter products of U-238. Equilibrium between parent and daughter products probably does not exist in disturbed materials.
Th-232dau is the activity of Ac-228, Pb-212, and Tl-208, short lived daughter products of Th-232. Equilibrium between parent and daughter products may not exist in disturbed materials.
Other samples, not containing natural materials, may have inapplicable results for the Th, U, transuranics and daughter products. The results must then be balanced for the gross alpha analysis.
**The gross alpha results are not corrected for mass absorbtion
No peaks for this radionuclide were visible above background in the spectrum. The result was reported as less than MDC.

Analyst T. J. Snider 12/30/99

Report To D. St John **Fax** 372-9487

Report Printed: Thursday, December 30, 1999

000024

Snider, Timothy J

From: Snider, Timothy J
Sent: Thursday, December 30, 1999 9:29 AM
To: Kessner, Joan H; Trent, Stephen J; Adler, Jason G; Weiss, Richard L
Subject: B0XBF7 (RCF6960), and B0XBF8 (RCF6961) 105F, SAF B00-013

All,

Will not be able to complete GEA's this morning due to computer shut down, however below is the gross alpha/beta results.

B0XBF7	2 pCi/gm alpha	12 pCi/gm beta
B0XBF8	2 pCi/gm alpha	14 pCi/gm beta
MDA's	<1 pCi/gm alpha	11 pCi/gm beta

Timothy J. Snider
RCF Technical Lead
373-9731

Figure 1

SAMPLE CHECK-IN LIST

Date/Time Received: 01/03/00 SG#: WO2993

Work Order Number: JOA030128 SAF #: 800-13

Shipping Container ID: EBC99-01 Chain of Custody # 800-013-142

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 4°C
5. Vermiculite/packing materials is Wet [ ] Dry [✓]
6. Number of samples in shipping container: 5
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:
   - [✓] tape
   - [✓] custody seals
   - [ ] hazard labels
   - [ ] appropriate sample labels

9. Samples are:
   - [✓] in good condition
   - [ ] broken
   - [ ] leaking
   - [ ] have air bubbles

10. Where any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: K. Hoffenberg Date: 01-03-00

Telephoned To: _____ On _____ By _____

Figure 1

SAMPLE CHECK-IN LIST

Date/Time Received: 1-300 1140 SG#: W02993

Work Order Number: J0A030128 SAF #: B00-014 / B00-013

Shipping Container ID: SM452 Chain of Custody # B00-013-90 +95

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 4 °C
5. Vermiculite/packing materials is Wet [ ] Dry [✓]
6. Number of samples in shipping container: 28
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:
   - ✓ tape
   - ✓ custody seals
   - ____ hazard labels
   - ____ appropriate sample labels

9. Samples are:
   - ✓ in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles

10. Where any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): ____

Sample Custodian/Laboratory: K. DeDenling Date: 01-03-00

Telephoned To: ____ On ____ By ____

000027

Environmental Services

020562

Login No.: F0A040163
W02993

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Richland
Date: 01-04-00 Time: 0850
Project No: 33811
Initiated by: Jason Tiemann
Shipper/No: Airborne / 4012339753
RFA/COC Numbers: B00-013-142, 90, 95

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4-C ± 2-C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☒ **No variances were noted during sample receipt.** **Cooler Temperature Upon Receipt:** 2°

Temperature Variance Does Not Affect the Following Analyses: _____

Notes: _____

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is". _____

☐ Comments: Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designee) Jason Tiemann Date: 01-04-00

Project Management Review: Mlard Date: 1.4.00

SL-ADMIN-0004, Revised 12/12/98

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

000028

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/05/00
Time: 15:35:36
User Id.: WILSONS

CLIENT: 127642 BECHTEL HANFORD, INC.
?ROJECT MANAGER: MARTI WARD
?ROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T6A
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB53
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A050217-001
WORK ORDER: D74C5
RECEIVING DATE: 1/04/00
SAMPLING DATE: 1/04/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 8:20
RECEIVING TIME: 11:00
SDG# : W02993

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/05/00	0/00/00	7/02/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D74C5 Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/05/00	0/00/00	2/01/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D74C5 Protocol: A QC Program: STANDARD TEST SET				

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/05/00
Time: 15:35:36
User Id.: WILSONS

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T6A
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB54
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A050217-002
WORK ORDER: D74C9
RECEIVING DATE: 1/04/00
SAMPLING DATE: 1/04/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 8:32
RECEIVING TIME: 11:00
SDG# :

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/05/00	0/00/00	7/02/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D74C9 Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/05/00	0/00/00	2/01/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D74C9 Protocol: A QC Program: STANDARD TEST SET				

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33811
PROJECT MANAGER: MARTI WARD LAB ID: F-0A050217-003
PROJECT #: D&D WORK ORDER: D74CC
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 1/04/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 1/04/00
SITE: B00-013 ANALYTICAL DUE DATE: 1/24/00N
AMOUNT REC"D: 60G REPORT DUE DATE: 1/24/00
STORAGE LOC: T6A PRIORITY: 18
LOT COMMENTS: Hanford Summary and FEAD EDD required SAMPLING TIME: 8:41
MATRIX: SOLID RECEIVING TIME: 11:00
SAMPLE ID: B0XB55
QC PACKAGE: Special Report - see checklist SDG# :
SAMPLE COMMENTS:

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/05/00	0/00/00	7/02/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D74CC Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/05/00	0/00/00	2/01/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D74CC Protocol: A QC Program: STANDARD TEST SET				

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33811
PROJECT MANAGER: MARTI WARD LAB ID: F-0A050217-004
PROJECT #: D&D WORK ORDER: D74CE
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 1/04/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 1/04/00
SITE: B00-013 ANALYTICAL DUE DATE: 1/24/00N
AMOUNT REC"D: 60G REPORT DUE DATE: 1/24/00
STORAGE LOC: T6A PRIORITY: 18
LOT COMMENTS: Hanford Summary and FEAD EDD required SAMPLING TIME: 8:48
MATRIX: SOLID RECEIVING TIME: 11:00
SAMPLE ID: B0XB56
QC PACKAGE: Special Report - see checklist SDG# :
SAMPLE COMMENTS:

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/05/00	0/00/00	7/02/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D74CE Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/05/00	0/00/00	2/01/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D74CE Protocol: A QC Program: STANDARD TEST SET				

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33811
PROJECT MANAGER: MARTI WARD LAB ID: F-0A050217-005
PROJECT #: D&D WORK ORDER: D74CF
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 1/04/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 1/04/00
SITE: B00-013 ANALYTICAL DUE DATE: 1/24/00N
AMOUNT REC"D: 60G REPORT DUE DATE: 1/24/00
STORAGE LOC: T6A PRIORITY: 18
LOT COMMENTS: Hanford Summary and FEAD EDD required SAMPLING TIME: 8:53
MATRIX: SOLID RECEIVING TIME: 11:00
SAMPLE ID: B0XB57
QC PACKAGE: Special Report - see checklist SDG# :
SAMPLE COMMENTS:

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/05/00	0/00/00	7/02/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D74CF Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/05/00	0/00/00	2/01/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D74CF Protocol: A QC Program: STANDARD TEST SET				

LIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33811
ROJECT MANAGER: MARTI WARD LAB ID: F-0A050217-006
ROJECT #: D&D WORK ORDER: D74CG
EPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 1/04/00
.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 1/04/00
ITE: B00-013 ANALYTICAL DUE DATE: 1/24/00N
MOUNT REC"D: 60G REPORT DUE DATE: 1/24/00
TORAGE LOC: T6A PRIORITY: 18
OT COMMENTS: Hanford Summary and FEAD EDD required SAMPLING TIME: 9:15
ATRIX: SOLID RECEIVING TIME: 11:00
AMPLE ID: B0XB58
C PACKAGE: Special Report - see checklist SDG# :
AMPLE COMMENTS:

eginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/05/00	0/00/00	7/02/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D74CG Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/05/00	0/00/00	2/01/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D74CG Protocol: A QC Program: STANDARD TEST SET				

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/05/00
Time: 15:35:36
User Id.: WILSONS

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC"D: 60G
STORAGE LOC: T6A
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB59
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A050217-007
WORK ORDER: D74CJ
RECEIVING DATE: 1/04/00
SAMPLING DATE: 1/04/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 18
SAMPLING TIME: 9:28
RECEIVING TIME: 11:00
SDG# :

Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/05/00	0/00/00	7/02/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D74CJ Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	1/05/00	0/00/00	2/01/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D74CJ Protocol: A QC Program: STANDARD TEST SET				

CUK#020568 2   W-211038

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B00-013-97	Page 1 of 1

Collector Fahlberg	Company Contact J Adler Telephone No. 373-4316	Project Coordinator TRENT, SJ	Price Code 9L Data Turnaround 21 Days
Project Designation 105-F/DR Phase III Below-grade Areas Sampling and Analy	Sampling Location 105 F	SAF No. B00-013	Air Quality ☐
Ice Chest No. ERC-96-065	Field Logbook No. EL 1424 COA 105F2280C	Method of Shipment Hand Delivered	
Shipped To Quanterra Incorporated	Offsite Property No.	Bill of Lading/Air Bill No. Airborne 4012584	

SW 01-05

POSSIBLE SAMPLE HAZARDS/REMARKS

W02993

Special Handling and/or Storage

Preservation	Cool 4C	None	Cool 4C	None	None					
Type of Container	aG	aG	aG	aG	aG					
No. of Container(s)	0	0	1	1	1					
Volume	60mL	120mL	60mL	60mL	120mL					

SAMPLE ANALYSIS Due 1-25

SDG-W02993   J0A040140

Sample No.	Matrix *	Sample Date	Sample Time	PCBs - 8082	Isotopic Uranium ✓	7196_CR6: Hexavalent Chromium (1) ✓	ICP Metals - 6010A (Supertrace) {Lead}; Mercury - 7471 - (CV)	See item (1) in Special Instructions.					
B0XB53	Other Solid	1-4-00	08:20	X	X	X	X	X	D72	6J		B0XBF5	100% f
B0XB54	OTHER SOLID	1-4-00	08:32	X	X	X	X	X	D72	6W		B0XBF5	
B0XB55	OTHER SOLID	1-4-00	08:41	X	X	X	X	X	D72	6X		B0XBF5	
B0XB56	OTHER SOLID	1-4-00	08:48	X	X	X	X	X	D72	H4		B0XBF5	
B0XB57	OTHER SOLID	1-4-00	08:53	X	X	X	X	X	D72	H6		B0XBF5	

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
R. Fahlberg / R. Fahlberg	1-4-00 1100	K. Achtemeier	1-4-00 1100
K. Achtemeier	1-4-00 1600	Jason Cummins	01-05-00 0830

SPECIAL INSTRUCTIONS

(1) Gamma Spectroscopy {Cobalt-60}; Gamma Spec - Add-on {Barium-133}; Isotopic Plutonium; Strontium-89,90 – Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14

OUT OF GAMMA SPEC ALIQUOT FOR URANIUM.

OUT OF ICP METALS ALIQUOT FOR PCB's.

Matrix *
S=Soil
SE=Sediment
SO=Solid
S=Sludge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (10/99)

CUR#020568 2°

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B00-013-101	Page 1 of 1
Collector: Fahlberg	Company Contact: J Adler	Telephone No.: 373-4316	Project Coordinator: TRENT, SJ	Price Code: 9L; Air Quality ☐	Data Turnaround: 21 Days
Project Designation: 105-F/DR Phase III Below-grade Areas Sampling and Analy	Sampling Location: 105 F Solids Feed		SAF No.: B00-013	
Ice Chest No.: ERC-96-065	Field Logbook No.: EL 1424	COA: R105F2280C	Method of Shipment: Hand Delivered	
Shipped To: Quanterra Incorporated	Offsite Property No.		Bill of Lading/Air Bill No.	

POSSIBLE SAMPLE HAZARDS/REMARKS

WO 2993

Special Handling and/or Storage

Preservation	Cool 4C	None	None								
Type of Container	aG	aG	aG								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	120mL								
SAMPLE ANALYSIS	7196_CR6: Hexavalent Chromium (1) ✓	ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7471 - (CV)	See item (1) in Special Instructions.								
Sample No.	Matrix *	Sample Date	Sample Time								
B0XB58	Other Solid	1-4-00	09:15	x	x	x	D72	HA			BOXBF6 100%
BOXB59	OTHER Solid	1-4-00	09:28	x	x	x	D72	HA			BOXBF6 ↓

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By	Date/Time 1100	Received By	Date/Time 1100
R Fahlberg / R Fahlberg	1-4-00	K Ashley	1-4-00
Relinquished By	Date/Time 1600	Received By	Date/Time
K Ashley	1-4-00	Jason Freeman	01-05-00 0830
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

(1) Gamma Spectroscopy (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 -- Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14

Matrix *
S=Soil
SE=Sediment
SO=Solid
S=Sludge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (10/99)

0003637

ERC Radiological Counting Facility Analysis Report

RCF Number RCF6958

Sample Date & Time 12/29/99 0935

Project ID: 105-F **SAF Number:** B00-013 **Date Analyzed** 12/30/99 8:07:

Sample ID: B0XBF5

Gamma Energy Analysis

Nuclide		Activity (pCi/g)		Error (pCi/g)	MDC (pCi/g)
K-40	<	1.4E+02			1.4E+02
Co-60	<	7.8E+00			7.8E+00
Cs-137	<	2.0E+01			2.0E+01
Eu-152	<	4.9E+01			4.9E+01
Eu-154	<	3.9E+01			3.9E+01
Eu-155	<	7.9E+01			7.9E+01
Th-232D	<	4.4E+01			4.4E+01
U-235	<	1.6E+02			1.6E+02
U-238	<	3.4E+03			3.4E+03
U-238D		1.4E+02	+/-	4.5E+01	5.1E+01
Am-241	<	4.5E+01			4.5E+01

Total GEA (pCi/g)	1.4E+02	+/-	4.5E+01

	Activity (pCi/g)		Error (pCi/g)
Gross Alpha**	2.0E+00	+/-	9.3E-01
Gross Beta	2.4E+01	+/-	1.7E+00

Alpha MDC (pCi/g)
9.3E-01
Beta MDC (pCi/g)
1.3E+01

Definitions:

All errors reported at 2 standard deviations.
N/R = no result or analysis not requested. <MDC = Less than detection limit.
All GEA results reported as "<" list the Minimum Detectable Concentration (MDC) value for that radionuclide.
Rounding error may result in the reported total GEA activity differing from the sum of the > MDC GEA values in the second significant digit.

For soils and natural samples, the following applies:

The analysis of U-238 is based on the activity of Pa-234m.
The analysis of Np-237 is based on the activity of Pa-233.
U-238dau is the activity of Pb-214 and Bi-214, short lived daughter products of U-238. Equilibrium between parent and daughter products probably does not exist in disturbed materials.
Th-232dau is the activity of Ac-228, Pb-212, and Tl-208, short lived daughter products of Th-232. Equilibrium between parent and daughter products may not exist in disturbed materials.
Other samples, not containing natural materials, may have inapplicable results for the Th, U, transuranics and daughter products. The results must then be balanced for the gross alpha analysis.
**The gross alpha results are not corrected for mass absorbtion
No peaks for this radionuclide were visible above background in the spectrum. The result was reported as less than MDC.

Analyst T. J. Snider 12/30/99

Report To D. St John **Fax** 372-9487

Report Printed: Thursday, December 30, 1999

ERC Radiological Counting Facility Analysis Report

RCF Number RCF6959 **Sample Date & Time** 12/29/99 0952

Project ID: 105-F **SAF Number:** B00-013 **Date Analyzed** 12/30/99 9:08:

Sample ID: B0XBF6

Gamma Energy Analysis

Nuclide		Activity (pCi/g)		Error (pCi/g)	MDC (pCi/g)
K-40	<	1.7E+02			1.7E+02
Co-60	<	1.8E+01			1.8E+01
Cs-137	<	1.8E+01			1.8E+01
Eu-152	<	4.7E+01			4.7E+01
Eu-154	<	4.8E+01			4.8E+01
Eu-155	<	8.0E+01			8.0E+01
Th-232D	<	4.7E+01			4.7E+01
U-235	<	1.6E+02			1.6E+02
U-238	<	3.3E+03			3.3E+03
U-238D		9.4E+01	+/-	4.3E+01	4.9E+01
Am-241	<	4.7E+01			4.7E+01

Total GEA (pCi/g)	9.4E+01	+/-	4.3E+01

	Activity (pCi/g)		Error (pCi/g)	Alpha MDC (pCi/g)
Gross Alpha**	7.6E-01	+/-	6.0E-01	4.3E-01
Gross Beta	1.0E+01	+/-	1.2E+00	**Beta MDC (pCi/g)** 5.6E+00

Definitions:

All errors reported at 2 standard deviations.
N/R = no result or analysis not requested. <MDC = Less than detection limit.
All GEA results reported as "<" list the Minimum Detectable Concentration (MDC) value for that radionuclide.
Rounding error may result in the reported total GEA activity differing from the sum of the > MDC GEA values in the second significant digit.

For soils and natural samples, the following applies:

The analysis of U-238 is based on the activity of Pa-234m.
The analysis of Np-237 is based on the activity of Pa-233.
U-238dau is the activity of Pb-214 and Bi-214, short lived daughter products of U-238. Equilibrium between parent and daughter products probably does not exist in disturbed materials.
Th-232dau is the activity of Ac-228, Pb-212, and Tl-208, short lived daughter products of Th-232. Equilibrium between parent and daughter products may not exist in disturbed materials.
Other samples, not containing natural materials, may have inapplicable results for the Th, U, transuranics and daughter products. The results must then be balanced for the gross alpha analysis.
**The gross alpha results are not corrected for mass absorbtion
No peaks for this radionuclide were visible above background in the spectrum. The result was reported as less than MDC.

Analyst T. J. Snider 12/30/99

Report To D. St John **Fax** 372-9487

Report Printed: Thursday, December 30, 1999

Figure 1

SAMPLE CHECK-IN LIST

Date/Time Received: 01-04-00 SG#: W02993

Work Order Number: JOA040140 SAF #: B00-023

Shipping Container ID: ERC96-065 Chain of Custody #: _____

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 4 °C
5. Vermiculite/packing materials is Wet [ ] Dry [✓]
6. Number of samples in shipping container: 21
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:
   - ✓ tape
   - ✓ custody seals
   - ____ hazard labels
   - ____ appropriate sample labels

9. Samples are:
   - ✓ in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles

10. Where any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: [signature] Date: 01-04-00

Telephoned To: _____ On _____ By _____

Quanterra
Environmental Services

020568

Login No.: FOA050217
W02993

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Hanford
Project No: 33811
Shipper/No: Airborne / 4012584015

Date: 01-05-00 Time: 0830
Initiated by: Jason Tiemann
RFA/COC Numbers: B00-013-97, 101,

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing.
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

☒ **No variances were noted during sample receipt.** **Cooler Temperature Upon Receipt:** 2°

Temperature Variance Does Not Affect the Following Analyses: _____

Notes: _____

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is".

Comments: _____

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: for designate Jason Tiemann Date: 01-05-00

Project Management Review: Mulard Date: 1-5-00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 12/12/98

000041

BECHTEL HANFORD, INC.

Client Sample ID: B0XBH1

TOTAL Metals

Lot-Sample #...: F0A040163-001 Matrix.....: SOLID
Date Sampled...: 12/29/99 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	30.7	0.30	mg/kg	SW846 6010B	01/25/00	D72VN101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.10	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72VN104
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XBH2

TOTAL Metals

Lot-Sample #...: F0A040163-002 Matrix.....: SOLID
Date Sampled...: 12/29/99 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	22.9	0.30	mg/kg	SW846 6010B	01/25/00	D72X4101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.10	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72X4102
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XBH3

TOTAL Metals

Lot-Sample #...: F0A040163-003 Matrix.....: SOLID
Date Sampled...: 12/29/99 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	14.4	0.30	mg/kg	SW846 6010B	01/25/00	D72X5101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.075	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72X5102
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XBH4

TOTAL Metals

Lot-Sample #...: F0A040163-004 Matrix.....: SOLID
Date Sampled...: 12/29/99 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	19.2	0.30	mg/kg	SW846 6010B	01/25/00	D72X6101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.24	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72X6102
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB46

TOTAL Metals

Lot-Sample #...: F0A040163-005 Matrix.....: SOLID
Date Sampled...: 01/03/00 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	10.9	0.30	mg/kg	SW846 6010B	01/25/00	D72XC101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.10	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72XC102
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB47

TOTAL Metals

Lot-Sample #...: F0A040163-006 Matrix.....: SOLID
Date Sampled...: 01/03/00 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	12.0	0.30	mg/kg	SW846 6010B	01/25/00	D72XH101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.034	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72XH102
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB48

TOTAL Metals

Lot-Sample #...: F0A040163-007 Matrix.....: SOLID
Date Sampled...: 01/03/00 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	4.1	0.30	mg/kg	SW846 6010B	01/25/00	D72XJ101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.042	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72XJ102
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB49

TOTAL Metals

Lot-Sample #...: F0A040163-008 Matrix.....: SOLID
Date Sampled...: 01/03/00 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	8.3	0.30	mg/kg	SW846 6010B	01/25/00	D72XK101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.018 B	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72XK102
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Results and reporting limits have been adjusted for dry weight.

BECHTEL HANFORD, INC.

Client Sample ID: B0XB50

TOTAL Metals

Lot-Sample #...: F0A040163-009 Matrix.....: SOLID
Date Sampled...: 01/03/00 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	34.2	0.30	mg/kg	SW846 6010B	01/25/00	D72XL101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.028 B	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72XL102
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Results and reporting limits have been adjusted for dry weight.

BECHTEL HANFORD, INC.

Client Sample ID: B0XB51

TOTAL Metals

Lot-Sample #...: F0A040163-010 Matrix.....: SOLID
Date Sampled...: 01/03/00 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	7.9	0.30	mg/kg	SW846 6010B	01/25/00	D72XM101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.035	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72XM102
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB52

TOTAL Metals

Lot-Sample #...: F0A040163-011 Matrix.....: SOLID
Date Sampled...: 01/03/00 Date Received..: 01/03/00
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0025202						
Lead	7.7	0.30	mg/kg	SW846 6010B	01/25/00	D72XN101
		Dilution Factor: 1				
Prep Batch #...: 0026217						
Mercury	0.024 B	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D72XN102
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Results and reporting limits have been adjusted for dry weight.

BECHTEL HANFORD, INC.

Client Sample ID: B0XB53

TOTAL Metals

Lot-Sample #...: F0A050217-001 Matrix.....: SOLID
Date Sampled...: 01/04/00 Date Received..: 01/04/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0026217						
Mercury	0.056	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D74C5102
		Dilution Factor: 1				
Prep Batch #...: 0027162						
Lead	59.3	0.30	mg/kg	SW846 6010B	01/27/00	D74C5101
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB54

TOTAL Metals

Lot-Sample #...: F0A050217-002 Matrix.....: SOLID
Date Sampled...: 01/04/00 Date Received..: 01/04/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0026217						
Mercury	0.039	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D74C9102
		Dilution Factor: 1				
Prep Batch #...: 0027162						
Lead	12.2	0.30	mg/kg	SW846 6010B	01/27/00	D74C9101
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB55

TOTAL Metals

Lot-Sample #...: F0A050217-003 Matrix.....: SOLID
Date Sampled...: 01/04/00 Date Received..: 01/04/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0026217						
Mercury	0.22	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D74CC102
		Dilution Factor: 1				
Prep Batch #...: 0027162						
Lead	5.9	0.30	mg/kg	SW846 6010B	01/27/00	D74CC101
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB56

TOTAL Metals

Lot-Sample #...: F0A050217-004 Matrix.....: SOLID
Date Sampled...: 01/04/00 Date Received..: 01/04/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0026217						
Mercury	0.092	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D74CE102
		Dilution Factor: 1				
Prep Batch #...: 0027162						
Lead	7.3	0.30	mg/kg	SW846 6010B	01/27/00	D74CE101
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB57

TOTAL Metals

Lot-Sample #...: F0A050217-005 Matrix.....: SOLID
Date Sampled...: 01/04/00 Date Received..: 01/04/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0026217						
Mercury	0.044	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D74CF102
		Dilution Factor: 1				
Prep Batch #...: 0027162						
Lead	29.1	0.30	mg/kg	SW846 6010B	01/27/00	D74CF101
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB58

TOTAL Metals

Lot-Sample #...: F0A050217-006 Matrix.....: SOLID
Date Sampled...: 01/04/00 Date Received..: 01/04/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0026217						
Mercury	**0.040**	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D74CG102
		Dilution Factor: 1				
Prep Batch #...: 0027162						
Lead	5.7	0.30	mg/kg	SW846 6010B	01/27/00	D74CG101
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0XB59

TOTAL Metals

Lot-Sample #...: F0A050217-007 Matrix.....: SOLID
Date Sampled...: 01/04/00 Date Received..: 01/04/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0026217						
Mercury	0.024 B	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D74CJ102
		Dilution Factor: 1				
Prep Batch #...: 0027162						
Lead	4.8	0.30	mg/kg	SW846 6010B	01/27/00	D74CJ101
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Results and reporting limits have been adjusted for dry weight.

BECHTEL HANFORD, INC.

Client Sample ID: B0X9V6

TOTAL Metals

Lot-Sample #...: F9L300209-001 Matrix.....: SOLID
Date Sampled...: 12/27/99 Date Received..: 12/29/99

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0013372						
Lead	24.7	0.30	mg/kg	SW846 6010B	01/13/00	D7124101
		Dilution Factor: 1				
Prep Batch #...: 0018187						
Mercury	0.83	0.033	mg/kg	SW846 7471A	01/18/00	D7124104
		Dilution Factor: 1				

BECHTEL HANFORD, INC.

Client Sample ID: B0X9V7

TOTAL Metals

Lot-Sample #...: F9L300209-002 Matrix.....: SOLID
Date Sampled...: 12/27/99 Date Received..: 12/29/99

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0013372						
Lead	11.9	0.30	mg/kg	SW846 6010B	01/13/00	D7369101
		Dilution Factor: 1				
Prep Batch #...: 0018187						
Mercury	0.58	0.033	mg/kg	SW846 7471A	01/18/00	D7369102
		Dilution Factor: 1				

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F9L300209 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F0A130000-372 **Prep Batch #...:** 0013372						
Lead	ND	0.30	mg/kg	SW846 6010B	01/13/00	D7E6K101
		Dilution Factor: 1				
MB Lot-Sample #: F0A180000-187 **Prep Batch #...:** 0018187						
Mercury	ND	0.033	mg/kg	SW846 7471A	01/18/00	D7HV5101
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F0A040163 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F0A250000-202 **Prep Batch #...:** 0025202						
Lead	ND	0.30	mg/kg	SW846 6010B	01/25/00	D7T2F101
		Dilution Factor: 1				
MB Lot-Sample #: F0A260000-217 **Prep Batch #...:** 0026217						
Mercury	ND	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D7VHA101
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F0A050217 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F0A260000-217 **Prep Batch #...:** 0026217						
Mercury	ND	0.033	mg/kg	SW846 7471A	01/31-02/01/00	D7VHA101
		Dilution Factor: 1				
MB Lot-Sample #: F0A270000-162 **Prep Batch #...:** 0027162						
Lead	ND	0.30	mg/kg	SW846 6010B	01/27/00	D7WKJ101
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F9L300209 Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F0A130000-372 **Prep Batch #...:** 0013372					
Lead	98	(76 - 124)	SW846 6010B	01/13/00	D7E6K102
		Dilution Factor: 1			
LCS Lot-Sample#: F0A180000-187 **Prep Batch #...:** 0018187					
Mercury	107	(80 - 120)	SW846 7471A	01/18/00	D7HV5102
		Dilution Factor: 2			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F0A040163 Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F0A250000-202 Prep Batch #...: 0025202					
Lead	106	(76 - 124)	SW846 6010B	01/25/00	D7T2F102
		Dilution Factor: 1			
LCS Lot-Sample#: F0A260000-217 Prep Batch #...: 0026217					
Mercury	98	(80 - 120)	SW846 7471A	01/31-02/01/00	D7VHA102
		Dilution Factor: 2			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F0A050217 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F0A260000-217 **Prep Batch #...:** 0026217					
Mercury	98	(80 - 120)	SW846 7471A	01/31-02/01/00	D7VHA102
		Dilution Factor: 2			
LCS Lot-Sample#: F0A270000-162 **Prep Batch #...:** 0027162					
Lead	106	(76 - 124)	SW846 6010B	01/27/00	D7WKJ102
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F0A040163 **Matrix.....:** SOLID
Date Sampled...: 12/29/99 **Date Received..:** 01/03/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F0A040163-001 **Prep Batch #...:** 0025202							
Lead	110	(75 - 125)			SW846 6010B	01/25/00	D72VN102
	91	(75 - 125)	12	(0-20)	SW846 6010B	01/25/00	D72VN103
		Dilution Factor: 1					
MS Lot-Sample #: F0A040163-001 **Prep Batch #...:** 0026217							
Mercury	97	(75 - 125)			SW846 7471A	01/31-02/01/00	D72VN105
	91	(75 - 125)	3.9	(0-20)	SW846 7471A	01/31-02/01/00	D72VN106
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.